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(54) COOLING SYSTEM FOR INTEGRATED CIRCUIT

(57) Abstract:

PURPOSE: To keep characteristics of an integrated circuit unchanged without being affected by an ambient temperature by a method wherein a Peltier effect module is embedded in a package of the integrated circuit and a current which flows through it is controlled while the temperature of the package is monitored.

CONSTITUTION: A program is already incorporated in a microprocessor 15 and an integrated circuit enters the state capable of

changing a current that flows through a cooling module 4 by controlling a current control element 16 by a signal from an amplifier 12. Hereby, in case the equilibrium state is upset and the temperature of an integrated circuit package 2 rises, the temperature rise is obserbed by a thermocouple 11 and transmitted being changed into a potential difference to the amplifier 12 through wirings 10. The amplifier 12 amplifiers this and transmits to the processor 15. In the processor 15, the difference between a setpoint and a transmission value from the amplifier 12 is judged and the element 16 is controlled, thereby enabling an increase of the current that flows through the cooling module, to augment the cooling capacity and to recover the original temperature of the integrated circuit package.